RECEIVED
CENTRAL FAX CENTER

MAR 10 2009

CUSTOMER NO.: 24498
Serial No.: 10/089,903
Final Office Action Dated: April 3, 2008
Advisory Action Dated: September 5, 2008

PATENT
PF990066

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Applicants: Franck Abelard et al.

Examiner: Hung Q. Dang

Serial No: 10/089,903

Group Art Unit: 2621

Filed: April 3, 2002

Docket: PF990066

For: METHOD AND DEVICE FOR WRITING DATA TO A RECORDING MEDIUM IN A DIGITAL VIDEO SYSTEM

Mail Stop Appeal Brief-Patents
Hon. Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPEAL BRIEF

Applicants appeal the status of Claims 1–6 as rejected in the Final Office Action dated April 3, 2008 and the Advisory Action dated September 5, 2008, pursuant to the Notice of Appeal filed on September 30, 2008 and submit this appeal brief in triplicate. A Petition for Extension of Time extending the deadline for filing a brief for four months, to expire on March 30, 2009, is attached herewith.

CERTIFICATE OF MAILING 37 C.F.R. §1.8(a)

I hereby certify that this correspondence (and any document referred to as being attached or enclosed) is being faxed to: Mail Stop Appeal Brief-Patents, Hon. Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on

Dated: 10 March 2009

/Kathleen Lyles/
Kathleen Lyles

CUSTOMER NO.: 24498
Serial No.: 10/089,903
Final Office Action Dated: April 3, 2008
Advisory Action Dated: September 5, 2008

PATENT
PF990066

TABLE OF CONTENTS:

CUSTOMER NO.: 24498
Serial No.: 10/089,903
Final Office Action Dated: April 3, 2008
Advisory Action Dated: September 5, 2008

PATENT
PF990066

10. RELATING PROCEEDINGS APPENDIX

CUSTOMER NO.: 24498
Serial No.: 10/089,903
Final Office Action Dated: April 3, 2008
Advisory Action Dated: September 5, 2008

PATENT
PF990066

1. **Real Party in Interest**

The real party in interest is THOMSON LICENSING S.A., the assignee of the entire right title and interest in and to the subject application by virtue of an assignment recorded with the Patent Office on **April 3, 2002** at reel/frame **012966/0552**.

2. **Related Appeals and Interferences**

None

3. **Status of Claims**

Claims 1–6 are pending. Claims 1–6 stand rejected and are under appeal.

A copy of the Claims 1–6 is presented in Section 8 below.

4. **Status of Amendments**

A response to the Final Office Action dated April 3, 2008 was filed under 37 C.F.R. § 1.116. However, no changes were made to the claims at that time.

5. **Summary of Claimed Subject Matter**

Independent Claim 1 is directed to a "[m]ethod for recording data in a digital video processing device connectable to a recording medium."

The subject matter of the first element of claim 1, beginning with "receiving a stream of data packets," is described in, e.g., page 1, lines 30–31, and page 4, lines 32–35.

The subject matter of the second element of claim 1, beginning with "providing N (N>1) buffers," is described in, e.g., page 1, lines 32–33, page 5, lines 6–8, and page 8, lines 16–20.

The subject matter of the third element of claim 1, beginning with "monitoring a total sum quantity of data" is described in, e.g., page 1, line 34.

The subject matter of the fourth element of claim 1, beginning with, "triggering a writing process" is described in, e.g., page 1, lines 35–37, and page 2, lines 7–9.

Independent claim 5 is directed to a "Digital video processing device comprising a demultiplexer and a recording medium."

The subject matter of the first element of claim 5, beginning with "N buffers," is described in, e.g., page 2, line 30 and page 4, lines 32–35.

The subject matter of the second element of claim 5, beginning with "means for controlling the writing of demultiplexed data packets . . . into said buffers," is a means-plus-function feature as permitted by 35 U.S.C. § 112, paragraph 6. The element generally finds support on page 2, lines 31–34, page 4, lines 32–35, and is depicted in FIG. 1, elements 4, 5, and 10. The limitation of "each data packet being associated with one of N packet identifiers," is described on page 2, lines 33–35 and page 4, lines 32–35. The limitation of "where each buffer receives data packets corresponding to a specific packet identifier" is described on page 2, lines 33–34 and page 5, lines 6–8.

The subject matter of the third element of claim 5, beginning with "means . . . for controlling the quantity of data packets in each buffer" is a means-plus-function feature as permitted by 35 U.S.C. § 112, paragraph 6. The element generally finds support on page 2, lines

34–37, page 3, lines 2–3, page 8, lines 28–31, and is depicted in FIG. 1, elements 5, 10, and 15–23. The limitation of "in order to trigger the writing of the buffer contents to the recording medium" is described on page 2, lines 34–36 and page 8, lines 29–31. The limitation of "when the sum of the data packets in all buffers reaches a predetermined level" is described on page 2, lines 36–37 and page 8, lines 29–30. The limitation of "said predetermined level being dependant on at least one characteristic of the recording medium" is described on page 3, lines 2–3, page 7, lines 7–16, and page 8, lines 29–31.

6. **Grounds of Rejection to be Reviewed on Appeal**

Claims 1–3 and 5–6 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,619,337 to Naimpally (hereinafter "Naimpally") in view of European Patent Publication No. EP 0 841 819 to Yoneda et al. (hereinafter "Yoneda") and in further view of U.S. Patent No. 6,009,078 to Sato (hereinafter "Sato").

Claim 4 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Naimpally in view of Yoneda, in further view of Sato, and in further view of U.S. Patent No. 6,304,914 to Deo et al. (hereinafter "Deo").

The preceding rejections under 35 U.S.C. §103(a) are presented for review in this Appeal with respect to Claims 1–6, as argued with respect to independent Claims 1 and 5.

Regarding the grouping of the claims with respect to the rejection under 35 U.S.C. §103(a), Claims 2–4 stand or fall with Claim 1, and Claim 6 stands or falls with Claim 5, due to their respective dependencies. Claims 1 and 5 stand or fall together due to their shared subject matter.

CUSTOMER NO.: 24498
Serial No.: 10/089,903
Final Office Action Dated: April 3, 2008
Advisory Action Dated: September 5, 2008

PATENT
PF990066

7. **Argument**

A. Introduction

In general, the present invention is directed to a technique for writing digital video data to a recording medium. (Applicant's specification, Title). As disclosed in the Applicant's specification on page 1, lines 19–25:

> The [prior art] receiver comprises buffers for accumulating audio, video and auxiliary data, where the writing of all accumulated data to a fixed-size block of the disk is triggered when the amount of video data reaches a predetermined level. Although this system as many advantages, disk space is not used with maximum efficiency, because it is necessary to fill unused space of a data block attributed to either audio or auxiliary data on the disk with stuffing bits.

Advantageously, the present principles provide a method for recording data in video processing (Claim 1) and a digital video processing device comprising a demultiplexer and a recording medium (Claim 2).

The claims of the pending invention include novel features which are not shown in the cited references. These features provide advantages over the prior art and dispense with prior art problems such as those described above with reference to Applicant's specification. In addition, the references cited against the claims may not permissibly be combined, as they do not all pertain to arts analogous to the present invention.

It is respectfully asserted that independent Claims 1 and 5 are each patentably distinct and non-obvious over the cited references in their own right. For example, the below-identified limitations of independent Claims 1 and 5 are not shown in any of the cited references, either taken singly or in combination. Moreover, these Claims are distinct from each other in that they are directed to different implementations and/or include different limitations. For example, Claim 1

and Claim 5 are directed to a method and a digital video processing device respectively. Accordingly, each of independent Claims 1 and 5 represent separate features/implementations of the invention that are novel and non-obvious with respect to the prior art and to the other claims. As such, independent Claims 1 and 5 are separately patentable and are each presented for review in this appeal.

B. Whether unpatentable over U.S. Patent No. 5,619,337 to Naimpally in view of European Patent Publication No. EP 0 841 819 to Yoneda et al. and in further view of U.S. Patent No. 6,009,078 to Sato

"To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." (MPEP §2143.03, citing In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)). "To rely on a reference under 35 U.S.C. 103, it must be analogous prior art." (MPEP § 2141.01(a)(I)). "Obviousness can be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so." (MPEP § 2143.01(I)). "If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious." (MPEP §2143.03, citing In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)).

The Examiner rejected Claims 1–3 and 5–6 as being unpatentable over U.S. Patent No. 5,619,337 to Naimpally in view of European Patent Publication No. EP 0 841 819 to Yoneda et al. and in further view of U.S. Patent No. 6,009,078 to Sato. The Examiner contends that the cited combination shows all the limitations recited in Claims 1–3 and 5–6.

Naimpally is directed to an "MPEG transport encoding/decoding system." (Naimpally, Title). In further detail, Naimpally discloses the following in the Abstract:

> A system records a single program from a multi-program transport stream that is encoded according to the MPEG-2 standard. The system demultiplexes transport packets from the multi-program transport stream and records the demultiplexed packets on a digital video cassette recorder (DVCR). The system includes circuitry in the encoder which emulates a buffer in the digital recorder that is used to hold the packets to convert the bursty packet data into constant rate data for recording. This emulated buffer controls the overall rate at which packets of the selected program are inserted into the multi-program transport stream by the encoder. As each packet is recorded, a time stamp value, representing when the packet was demultiplexed and a clock count value, representing a number of pulses of a high-frequency system clock signal that occurred during a predetermined number of bytes of the demultiplexed packet are recorded with the demultiplexed packet. These values are used to regenerate timing signals for a single program transport stream when the recorded packet data is replayed from tape.

Yoneda is directed to a "[v]ideo/audio coding and multiplexing method and apparatus." (Yoneda, Title). In further detail, Yoneda discloses the following in the Abstract:

> In a video/audio coding and multiplexing method, coding of multimedia data including video data and audio data is implemented as a software program operating on a multitask operating system, and video/audio coded and multiplexed information in which video/audio synchronization is realized in specified time units is obtained. In this method, coded video information and coded audio information are temporarily stored in a video buffer and an audio buffer, respectively. A video/audio synchronization means creates time information using video block rate information which is created on the basis of the coded video information and stored with the coded video information.; According to the time information, a coded video read-out means and a coded audio read-out means read the coded video information and the coded audio information from the respective buffers, and the video/audio synchronization means performs video/audio multiplexing. Thereby, the coding process and the multiplexing process are performed at independent timings.

Sato is directed to an "ATM switch device" (Sato, Title). In further detail, Sato discloses the following in the Abstract:

> In an ATM switch device having a plurality of input ports and a plurality of output ports, a port buffer is arranged for each of the output ports and is given a minimum guaranteed value which represents the minimum number of output cells sent to each output port even when traffic congestion takes place at the other output ports. A total queue monitoring buffer is also arranged to monitor a total number of output cells which is equal to a total sum of the minimum guaranteed values determined for the respective output ports and is counted up only when the counts of the port buffers exceed the minimum guaranteed values. With this structure, it is possible to detect traffic congestion all over the ATM switch device by the total queue monitoring buffer and to assure delivery of the output cells equal to the minimum guaranteed value. Each minimum guaranteed value may be determined for each service class and a multicast cell.

It will be shown below that the limitations of Claims 1–3 and 5–6 reproduced herein are not shown in the suggested combination, and that Claims 1–3 and 5–6 should be allowed.

I. Claims 1–3 and 5–6.

Initially, it is respectfully pointed out to the Examiner that Claims 2–3 directly or indirectly depend from independent Claim 1. Thus, Claims 2–3 include all the limitations of Claim 1. It is also respectfully pointed out that Claim 6 depends directly from Claim 5. Thus, Claim 6 includes all the limitations of Claim 5.

It is respectfully asserted that Naimpally, Yoneda, and/or Sato, taken alone or in any combination, fail to teach or suggest the following limitations of Claims 1–3 and 5–6 (with the following applicable to Claims 2–3 and 6 by virtue of their respective dependencies from Claims 1 and 5). Claim 1 recites:

> providing N (N>1) buffers for receiving respectively packets corresponding to one of N packet identifiers.

Claim 5 recites:

> N buffers, where N is an integer greater than 1;
> means for controlling the writing of demultiplexed packets, each data packet being associated with one of N packet identifiers, into said buffers, where each buffer receives data packets corresponding to a specific packet identifier.

The Examiner asserts that Naimpally discloses this element in its components 122, 124, and 126 in FIG. 1A. The Examiner notes that component 126 includes a buffer 130. However, Naimpally discloses *specifically* those three components, and they do not in any way relate to the N packet identifiers. Instead, they represent three different "models": two T-STD models and one DVCR model. At no point does Naimpally relate these models to PIDs, nor does it disclose or suggest the possibility of there being more or less than the three represented models. At the same time, Naimpally's FIG. 4B shows *at least* four different kinds of PIDs: PAT_PID 424; PMT_PID 426; CAT_PID 428; PID BELONG TO PROGRAM 430; and "others" 432.

As a result, it is respectfully asserted that Naimpally does not disclose or suggest providing N buffers corresponding to one of N packet identifiers.

It should also be noted that Yoneda and Sato fail to cure the deficiencies of Naimpally. Yoneda does not deal with packets at all, and so cannot provide buffers which correspond to packet identifiers. Sato, meanwhile, is directed to a wholly different art, and does not refer to packet identifiers in any way.

As such, it is respectfully asserted that Naimpally, Yoneda, and/or Sato, taken alone or in any combination, fail to teach the above-recited limitation of Claims 1–3 and 5–6. Accordingly, claims 1–3 and 5–6 are patentably distinct and non-obvious over Naimpally, Yoneda, and Sato for at least the reasons set forth above.

Furthermore, it is respectfully asserted that Naimpally, Yoneda, and Sato may not permissibly be combined to render the present invention obvious, because Sato does not belong to an analogous art. Claim 1 also recites, "monitoring a total sum quantity of data stored in the plurality of N buffers." Claim 5 recites, "means . . . for controlling the quantity of data packets in each buffer." The Examiner concedes that neither Naimpally nor Yoneda discloses this element, but asserts that Sato does.

However, Sato cannot properly be called "analogous prior art." There is a two-pronged standard for determining what constitutes analogous prior art: 1. Whether the reference is in the same field of endeavor as the application; and 2. Whether the reference is reasonably pertinent to the problem being solved. (*See* In re Wood, 599 F.2d 1032, 1036 (C.C.P.A., 1979)). It is clear that Sato does not belong to the same field of endeavor as the present invention. The question is therefore whether Sato is reasonably pertinent to the problem being solved.

The Examiner addresses this point in the Advisory Action dated September 5, 2008. The Examiner states that Sato addresses the problem of "buffer management," and that this is a specific problem which needs to be solved in the claimed subject matter. However, it is respectfully asserted that "buffer management" is far too broad a classification for the problem at hand. The techniques, methods, and systems for "managing buffers" are legion, and insisting that one technique for "buffer management" is equivalent to any other such technique is analogous to saying that, because two objects belong to the same class, they must be the same object. The problem to be solved cannot therefore be, "How does one manage buffers?" Instead, one must look at what motivates the solution of monitoring the total data across the buffers

between Sato and the present invention, and then ask whether they address the same particular problem.

The present invention monitors the data stored in its buffers for the purpose of "triggering a writing process . . . when said total sum quantity of data reaches a predetermined level." (Claim 1). The present invention monitors the data in the buffers in order to know when it should write that data to a recording medium. In contrast, Sato monitors a sum of data stored in a plurality of buffers in order to determine when it is appropriate to regulate *input* to the buffers, in order to avoid discarded packets. (*See* Sato, col. 5, lns 29–34 and col. 2, lns 39–49).

It is therefore respectfully asserted that Sato's monitoring is directed to a substantially different problem than the one addressed by the present claims. Where the present invention monitors in order to determine when to write the contents of the buffers, Sato monitors in order to determine when to stop allowing new input. One skilled in the present invention's field of endeavor would have reason to seek out Sato for the problem of determining when a buffer is sufficiently full, as Sato is directed to a problem where the buffers become overfull.

Relatedly, it is respectfully asserted that the examiner has failed to provide the necessary motivation to combine the references in the manner suggested. The Examiner states, "One of ordinary skill in the art have good reasons to look into Sato's teachings regarding buffer management because Sato approach would reduce the amount of memory used for this purpose." However, as noted above, Sato's monitoring is directed to the regulation of input, not in order to save memory, but in order to prevent packet discards. The Examiner cites column 5, lines 34–36 for support. These lines state, "*With this structure*, a memory capacity can be reduced in the total queue monitoring buffer TQ." (Emphasis added.) Sato here is not discussing monitoring, but is

instead discussing the *structure* of its buffer. As a result, there would be no motivation to combine Sato with Naimpally or Yoneda. Sato recites no particular advantage which Naimpally or Yoneda might gain from monitoring their buffers.

It is therefore respectfully asserted that not only is Sato non-analogous art, but that there is no motivation to combine Sato with the other references in the manner suggested. It is therefore impermissible to combine Sato with the other references in the manner suggested to render the present claims obvious. Because the Examiner concedes that Naimpally and Yoneda do not disclose the monitoring step, it is believed that Claim 1 is patentable over their combination. Accordingly, Claims 1–3 and 5–6 are patentably distinct and non-obvious over Naimpally and Yoneda, for at least the reasons set forth above.

Therefore, withdrawal of the rejection and allowance of Claims 1–3 and 5–6 is earnestly requested.

C. Whether unpatentable over U.S. Patent No. 5,619,337 to Naimpally in view of European Patent Publication No. EP 0 841 819 to Yoneda et al., in further view of U.S. Patent No. 6,009,078 to Sato, and in further view of U.S. Patent No. 6,304,914 to Deo et al.

"To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." (MPEP §2143.03, citing In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)). "If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious." (MPEP §2143.03, citing In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)).

CUSTOMER NO.: 24498
Serial No.: 10/089,903
Final Office Action Dated: April 3, 2008
Advisory Action Dated: September 5, 2008

PATENT
PF990066

The Examiner rejected Claim 4 as being unpatentable over U.S. Patent No. 5,619,337 to Naimpally in view of European Patent Publication No. EP 0 841 819 to Yoneda et al., in further view of U.S. Patent No. 6,009,078 to Sato and in further view of U.S. Patent No. 6,304,914 to Deo et al. The Examiner contends that the cited combination shows all the limitations recited in Claim 4.

Naimpally is directed to an "MPEG transport encoding/decoding system." (Naimpally, Title). In further detail, Naimpally discloses the following in the Abstract:

> A system records a single program from a multi-program transport stream that is encoded according to the MPEG-2 standard. The system demultiplexes transport packets from the multi-program transport stream and records the demultiplexed packets on a digital video cassette recorder (DVCR). The system includes circuitry in the encoder which emulates a buffer in the digital recorder that is used to hold the packets to convert the bursty packet data into constant rate data for recording. This emulated buffer controls the overall rate at which packets of the selected program are inserted into the multi-program transport stream by the encoder. As each packet is recorded, a time stamp value, representing when the packet was demultiplexed and a clock count value, representing a number of pulses of a high-frequency system clock signal that occurred during a predetermined number of bytes of the demultiplexed packet are recorded with the demultiplexed packet. These values are used to regenerate timing signals for a single program transport stream when the recorded packet data is replayed from tape.

Yoneda is directed to a "[v]ideo/audio coding and multiplexing method and apparatus." (Yoneda, Title). In further detail, Yoneda discloses the following in the Abstract:

> In a video/audio coding and multiplexing method, coding of multimedia data including video data and audio data is implemented as a software program operating on a multitask operating system, and video/audio coded and multiplexed information in which video/audio synchronization is realized in specified time units is obtained. In this method, coded video information and coded audio information are temporarily stored in a video buffer and an audio buffer, respectively. A video/audio synchronization means creates time information using video block rate information which is created on the basis of the coded video information and stored with the coded video information.; According to the time information, a coded video read-out means and a coded audio read-out means read the coded video information and the coded audio information from the respective buffers, and the

video/audio synchronization means performs video/audio multiplexing. Thereby, the coding process and the multiplexing process are performed at independent timings.

Sato is directed to an "ATM switch device" (Sato, Title). In further detail, Sato discloses the following in the Abstract:

> In an ATM switch device having a plurality of input ports and a plurality of output ports, a port buffer is arranged for each of the output ports and is given a minimum guaranteed value which represents the minimum number of output cells sent to each output port even when traffic congestion takes place at the other output ports. A total queue monitoring buffer is also arranged to monitor a total number of output cells which is equal to a total sum of the minimum guaranteed values determined for the respective output ports and is counted up only when the counts of the port buffers exceed the minimum guaranteed values. With this structure, it is possible to detect traffic congestion all over the ATM switch device by the total queue monitoring buffer and to assure delivery of the output cells equal to the minimum guaranteed value. Each minimum guaranteed value may be determined for each service class and a multicast cell.

Deo is directed to a "pre-compression packaging" (Deo, Title). In further detail, Deo discloses the following in the Abstract:

> A computer readable medium in a computer system has instructions for storing a first and second data packet destined for the same address. The first and second data packets are appended together to produce a merged data packet that is then compressed to produce a compressed data packet. The compressed data packet is then sent to the common address.

It will be shown below that the limitations of Claim 4 reproduced herein are not shown in the cited combination, and that Claim 4 should be allowed.

I. Claim 4

Initially, it is respectfully pointed out to the Examiner that Claim 4 indirectly depends

from independent Claim 1. Thus, Claim 4 includes all the limitations of Claim 1.

It is respectfully asserted that Naimpally, Yoneda, Sato, and/or Deo, taken alone or in any combination, fail to teach or suggest the following limitations of Claim 4 (with the following applicable to Claim 4 by virtue of its dependency from Claim 1). Claim 1 recites:

> providing N (N>1) buffers for receiving respectively packets corresponding to one of N packet identifiers.

The Examiner asserts that Naimpally discloses this element in its components 122, 124, and 126 in FIG. 1A. The Examiner notes that component 126 includes a buffer 130. However, Naimpally discloses *specifically* those three components, and they do not in any way relate to the N packet identifiers. Instead, they represent three different "models": two T-STD models and one DVCR model. At no point does Naimpally relate these models to PIDs, nor does it disclose or suggest the possibility of there being more or less than the three represented models. At the same time, Naimpally's FIG. 4B shows *at least* four different kinds of PIDs: PAT_PID 424; PMT_PID 426; CAT_PID 428; PID BELONG TO PROGRAM 430; and "others" 432.

As a result, it is respectfully asserted that Naimpally does not disclose or suggest providing N buffers corresponding to one of N packet identifiers.

It should also be noted that Yoneda, Sato and Deo fail to cure the deficiencies of Naimpally. Yoneda and Deo do not deal with packets at all, and so cannot provide buffers which correspond to packet identifiers. Sato, meanwhile, is directed to a wholly different art, and does not refer to packet identifiers in any way.

As such, it is respectfully asserted that Naimpally, Yoneda, Sato, and/or Deo, taken alone or in any combination, fail to teach the above-recited limitation of Claim 4. Accordingly, Claim

4 is patentably distinct and non-obvious over Naimpally, Yoneda, Sato, and Deo for at least the reasons set forth above.

Furthermore, it is respectfully asserted that Naimpally, Yoneda, Sato and Deo may not permissibly be combined to render the present invention obvious, because Sato does not belong to an analogous art. Claim 1 also recites, "monitoring a total sum quantity of data stored in the plurality of N buffers." Claim 5 recites, "means . . . for controlling the quantity of data packets in each buffer." The Examiner concedes that neither Naimpally nor Yoneda discloses this element, but asserts instead that Sato does.

However, Sato cannot properly be called "analogous prior art." There is a two-pronged standard for determining what constitutes analogous prior art: 1. Whether the reference is in the same field of endeavor as the application; and 2. Whether the reference is reasonably pertinent to the problem being solved. (*See* In re Wood, 599 F.2d 1032, 1036 (C.C.P.A., 1979)). It is clear that Sato does not belong to the same field of endeavor as the present invention. The question is therefore whether Sato is reasonably pertinent to the problem being solved.

The Examiner addresses this point in the Advisory Action dated September 5, 2008. The Examiner states that Sato addresses the problem of "buffer management," and that this is a specific problem which needs to be solved in the claimed subject matter. However, it is respectfully asserted that "buffer management" is far too broad a classification for the problem at hand. The techniques, methods, and systems for "managing buffers" are legion, and insisting that one technique for "buffer management" is equivalent to any other such technique is analogous to saying that, because two objects belong to the same class, they must be the same object. The problem to be solved cannot therefore be, "How does one manage buffers?" Instead,

one must look at what motivates the solution of monitoring the total data across the buffers between Sato and the present invention, and then ask whether they address the same specific problem.

The present invention monitors the data stored in its buffers for the purpose of "triggering a writing process . . . when said total sum quantity of data reaches a predetermined level." (Claim 1). The present invention monitors the data in the buffers in order to know when it should write that data to a recording medium. In contrast, Sato monitors a sum of data stored in a plurality of buffers in order to determine when it is appropriate to regulate *input* to the buffers, in order to avoid discarded packets. (*See* Sato, col. 5, lns 29–34 and col. 2, lns 39–49).

It is therefore respectfully asserted that Sato's monitoring is directed to a substantially different problem than is solved by the present claims. Where the present invention monitors in order to determine when to write the contents of the buffers, Sato monitors in order to determine when to stop allowing new input. One skilled in the present invention's field of endeavor would have reason to seek out Sato for the problem of determining when a buffer is sufficiently full, as Sato is directed to a problem where the buffers become overfull.

Relatedly, it is respectfully asserted that the examiner has not articulated a proper motivation to combine the references in the manner suggested. The Examiner states, "One of ordinary skill in the art have good reasons to look into Sato's teachings regarding buffer management because Sato approach would reduce the amount of memory used for this purpose." However, as noted above, Sato's monitoring is directed to the regulation of input, not in order to save memory, but in order to prevent packet discards. The Examiner cites column 5, lines 34–36 for support. These lines state, "*With this structure*, a memory capacity can be reduced in the total

queue monitoring buffer TQ." (Emphasis added.) Sato here is not discussing monitoring, but is instead discussing the *structure* of its buffer. As a result, there would be no motivation to combine Sato with Naimpally, Yoneda, or Deo. Sato recites no particular advantage which Naimpally, Yoneda, or Deo might gain from monitoring their buffers.

Furthermore, Deo cannot cure the deficiencies of Naimpally and Yoneda with respect to monitoring buffers. Deo does not deal with buffers in any way, and so cannot monitor them. As a result, it is respectfully asserted that Naimpally, Yoneda, and/or Deo, taken alone or in any combination, fail to disclose or suggest all of the limitations of Claim 1. Even if Sato were permissible prior art, Naimpally, Yoneda, Sato, and/or Deo, taken alone or in any combination, would fail to disclose or suggest all of the limitations of claim 1.

Therefore, withdrawal of the rejection and allowance of Claim 4 is earnestly requested.

D. Conclusion

At least the above-identified limitations of the pending claims are not disclosed or suggested by the teachings of the cited references. Accordingly, it is respectfully requested that the Board reverse the rejections of Claim 1–6 under 35 U.S.C. § 103(a).

Please charge the amount of $500.00, covering fee associated with the filing of the Appeal Brief, to **Thomson Licensing Inc., Deposit Account No. 07-0832.** In the event of any non-payment or improper payment of a required fee, the Commissioner is authorized to charge **Deposit Account No. 07-0832** as required to correct the error.

CUSTOMER NO.: 24498
Serial No.: 10/089,903
Final Office Action Dated: April 3, 2008
Advisory Action Dated: September 5, 2008

PATENT
PF990066

Respectfully submitted,
Franck Abelard et al.

By:
Paul P. Kiel, Attorney for Applicant
Registration No.: 40,677
Telephone No.: (609)734-6815

Thomson Licensing LLC
Patent Operations
P.O. Box 5312
Princeton, NJ 08543-5312

Date: 10 March 2009

8. CLAIMS APPENDIX

1. (Previously Presented) Method for recording data in a digital video processing device connectable to a recording medium, comprising the steps of:

- receiving a stream of data packets, each data packet being associated with one of N packet identifiers;

- providing N (N>1) buffers for receiving respectively packets corresponding to one of N packet identifiers;

- monitoring a total sum quantity of data stored in the plurality of N buffers; and

- triggering a writing process of the data contained in the plurality of buffers to the recording medium when said total sum quantity of data reaches a predetermined level, said predetermined level being dependant on at least one characteristic of the recording medium.

2. (Previously Presented) Method according to claim 1, wherein the predetermined level corresponds to a size of a data recording unit on the recording medium, minus a quantity of space reserved to service information.

3. (Original) Method according to claim 2, wherein the writing step comprises the writing of the data in the different buffers to a same recording unit.

4. (Original) Method according to claim 3, further comprising the step of writing a header into said recording unit, said header indicating for the data from each buffer: the corresponding packet identifier, the size and location of the data in the recording unit.

5. (Previously Presented) Digital video processing device comprising a demultiplexer and a recording medium wherein it further comprises:

- N buffers, where N is an integer greater than one,

- means for controlling the writing of demultiplexed data packets, each data packet being associated with one of N packet identifiers, into said buffers, where each buffer receives data packets corresponding to a specific packet identifier, and for controlling the quantity of data packets in each buffer in order to trigger the writing of the buffer contents to the recording medium when the sum of data packets in all buffers reaches a predetermined level, said predetermined level being dependant on at least one characteristic of the recording medium.

6. (Previously Presented) Device according to claim 5, wherein the predetermined level corresponds to a size of a data recording unit on the recording medium.

9. **RELATED EVIDENCE APPENDIX**

None.

10. RELATED PROCEEDINGS APPENDIX

None